SUBCONTRACT MANAGEMENT PLAN

1-401 Question 401 – Link's Subcontracts organization is a key participant in Link's TSA II Integrated Product Team (IPT). The IPT Subcontract Manager is assigned from Link's Subcontracts organization and reports to the Task Order Program Manager (PM) on all matters relating to TSA II subcontracting efforts. The assigned individual is drawn from a talented pool of seasoned Subcontract Administrators with the requisite skills and required experience to ensure successful subcontract management. The experience resident within Link's Subcontracts organization includes an impressive record of successfully managing critical requirements typical of Link's simulation and training products and services. The subcontract management process proposed for use on the TSA II program in the following paragraphs is the process Link has used successfully on our previous programs.

The selection, management, and control of subcontractors are critical components of overall program success. As a systems integrator, Link has developed a cadre of approved subcontractors that deliver quality products and services and provide Link and its customers with best-value solutions to critical requirements. Successful subcontract management on TSA II Task Orders will be accomplished using an integrated team of cross-functional expertise. Because critical subcontracts are typically complex and multifaceted in nature, it follows that multiple disciplines must contribute to the process of subcontract management. Additional IPT members, including engineering, quality assurance, logistics, and other specific disciplines, as necessary to ensure program success, will support the TSA II Subcontract Manager. This approach ensures successful subcontract management and control by integrating the unique disciplines resident in the critical functional areas into a cohesive team. This coordinated application of necessary expertise facilitates successful subcontract management. It consistently applies, on a sustained basis, the necessary technical, quality assurance, and contractual disciplines beginning at the solicitation phase and continuing through the acceptance phase of the subcontract management process.

Link's subcontractor selection process is based upon procurement practices derived from a best practice analysis of our legacy companies carried forward into our current organization. This has resulted in a well-structured, complete, and concise set of practices approved by the Defense Contract Management Agency and in full compliance with the Federal Acquisition Regulations. The TSA II Subcontract Manager, and the supporting IPT members, will execute their subcontract management duties compliant with required and prudent practices.

Figure 1-401-1 illustrates **the approach that Link will utilize for the identification, selection, management, and control of TSA II subcontracts**.

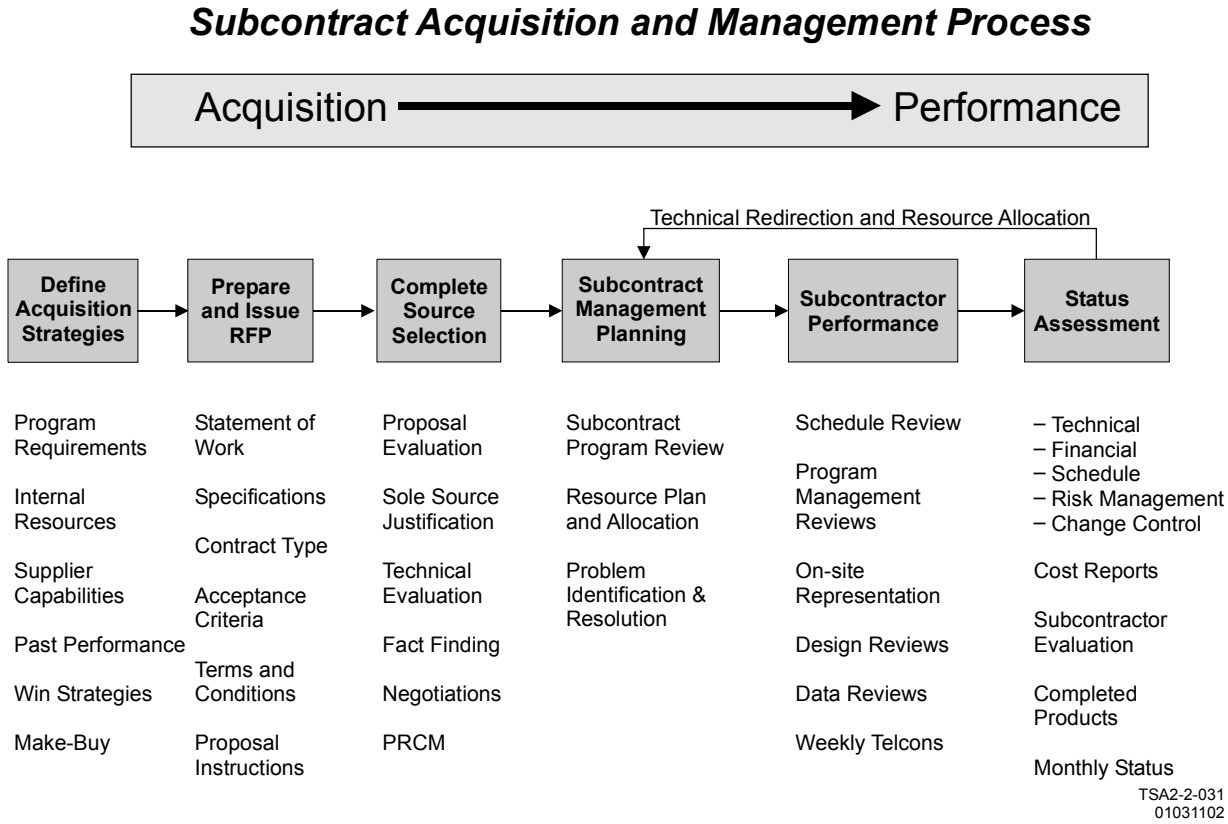

Figure 1-401-1 Link's Subcontract Management Process for TSA II Task Orders

The subcontract management process begins when we receive a TSA II Task Order and a decision by the PM to subcontract a portion of the work. The decision to subcontract work scope outside Link will be made after evaluation of a task order, both for new task orders and for requests to change an existing task order scope of work.

Link's TSA II **acquisition strategy is to solicit, evaluate, and award subcontracts to those subcontractors providing the best value** to Link and the TSA II customer. Competitive solicitations will be utilized to the maximum practical extent. The Link Subcontract Manager and IPT members will compile a bidder's list. They will use available information such as market analysis, past performance, quality ratings, the Link Functional Requirements Document (FRD) capabilities analysis, and existing subcontractor base capabilities. Should Link determine that it is not practicable or possible to compete a particular subcontract, a noncompetitive source justification will be required that documents the rationale why only a single or sole source of supply can fulfill the requirements.

In addition to soliciting subcontractors from Link's approved supplier list, Link will actively pursue and investigate suppliers who offer niche products and services, afford greater competition to Link's

existing supplier population, possess emerging technologies applicable to our product base, or otherwise enhance the performance of Link's products while lowering costs. Link also will aggressively pursue opportunities to provide TSA II subcontracts to small and small disadvantaged suppliers.

Based on the decisions of the make/buy committee, and using the bidder's list generated by the Subcontract Manager and the IPT members, the Subcontract Manager will prepare and coordinate a Request for Proposal (RFP) package to be sent to potential subcontractors. The PM and other key TSA II IPT members are key contributors to the RFP. Input products to the RFP package include proposal preparation instructions, Statement of Work (SOW), Performance Specification, drawings, program schedule, evaluation criteria, and applicable terms and conditions. Included within the SOW are the applicable acceptance criteria, data requirements (in the form of a Subcontract Data Requirements List), and other subcontractor tasks. Together, the documents contained within the RFP collectively identify the subcontractor's scope of work.

Link realizes that **a major contributor to a successful subcontract is the quality of the definition of the subcontractor's requirements**. Proper and correct requirements identification and flowdown help ensure that the subcontractor understands and can comply with RFP requirements. We strive to avoid adding requirements that provide little or no value to the program. Accordingly, Link will devote significant attention to developing a comprehensive, tailored, and critically reviewed set of requirements at this phase of the proposal process for all TSA II subcontract requirements. Each SOW and specification will contain a signature block to ensure it is reviewed and approved by each appropriate TSA II IPT member before it is sent to potential subcontractors. Configuration control of the SOW and specification is maintained from the time the document is first released to the Subcontract Manager.

The TSA II Subcontract Manager, together with the other IPT team members, identifies and defines the evaluation criteria that will be used to evaluate all submitted proposals. The evaluation criteria may differ with each subcontract, but in general they include a financial capabilities assessment, technical capabilities and requirements compliance review, past performance review, resource availability, management review, and quality system assessment. Link seeks to award best-value procurements. We will select those subcontractors who provide a technically superior product that represents the highest overall value to Link and the TSA II customer, consistent with the evaluation criteria contained in the RFP.

The Link Subcontract Manager and other appropriate IPT members will evaluate proposals that are received by the due date identified in the RFP or any written extensions thereto. This evaluation enables

Link to determine if the subcontractor's proposal is compliant, technically acceptable, and whether the price, either as submitted or as may be negotiated, is fair and reasonable and compliant with all Government regulations.

The Subcontract Manager and appropriate IPT members will evaluate each proposal to ensure it complies with RFP requirements using the criteria disclosed to the potential subcontractors in the proposal preparation instructions. The proposal evaluation typically consists of a cost, schedule and technical analysis, and a compliance review that addresses the following as a minimum:

- Compliance with the Subcontract SOW (SSOW) and technical requirements
- Proposed labor hours
- Skill mix of labor proposed and determination of appropriateness
- Review of rates and factors and other submitted cost or pricing data
- Review of proposed schedule and identification of risk areas
- Assessment of work scope
- Determination and coordination with the other Link proposal review team members as to whether the proposed effort is consistent with the allocated size and technical scope of the effort
- Review of proposed Other Direct Costs (ODC), such as travel.

During the course of the proposal evaluation process, Link IPT proposal reviewers may identify areas of noncompliance or areas that require additional information. The Subcontract Manager addresses any required clarifications or proposal deficiencies with each prospective TSA II subcontractor. When the circumstances dictate, the Subcontract Manager coordinates a fact-finding trip to the potential subcontractor's facility to ensure complete understanding of the subcontractor's proposal. The Link fact-finding team includes TSA II IPT members, as necessary, to ensure complete visibility into the subcontractor's proposal. The objective of fact finding is to obtain answers to questions or to address concerns. This helps ensure that a clear set of subcontractor requirements and understanding exists before initiating subcontractor negotiations. The Subcontract Manager will only establish negotiations after there is a full and complete agreement and understanding by both parties of the scope of work to be performed. Once the clarification/deficiency issues are addressed and fact finding has been accomplished, **the Subcontract Manager will establish a negotiation team, prepare negotiation objectives, and obtain management approval,** as required by Link procurement practices. The negotiation team, led by the Subcontract Manager and supported by IPT members, compares the negotiation objectives with the subcontractor proposal. This allows the team to determine whether the

subcontractor's position is consistent with the technical evaluation and with the TSA II customer's expectations for the proposed efforts. A cost or price objective (normally expressed as a range or minimum, most likely, and maximum cost or price) forms the basis for the prenegotiation position. The Subcontract Manager establishes the negotiation strategies and coordinates with the PM for all major subcontracted activities.

Prior to negotiations, **the Subcontract Manager chairs a Procurement Review Committee Meeting (PRCM). The purpose of this meeting is to obtain management and program concurrence** with subcontractor selection, RFP compliance, exceptions, risks mitigation plans, and negotiation objectives. The PRCM attendees include the appropriate TSA II IPT members, such as engineering and quality assurance, finance, the PM, procurement management, and the Vice President of Operations. The Subcontract Manager briefs the PM on changes in subcontracted work scope and schedule. The Subcontract Manager must support the negotiation objective with pertinent information on the subcontractor's rates, cost, ODCs, fee, and schedule. At the conclusion of the PRCM, the Subcontract Manager will have obtained concurrence to enter into negotiations with the subcontractor, after PRCM action items are resolved.

The Subcontract Manager will identify the IPT members to be included on the negotiation team. Negotiations are led by the Subcontract Manager, who briefs other attending Link IPT members on negotiation protocol. The Subcontract Manager resolves the questioned portions of the subcontractor's proposal, as presented in the technical evaluation, and other issues that have become apparent during the negotiations. Once a settlement is reached, the Subcontract Manager prepares a memorandum of agreement to document the final negotiated settlement with the final scope of work to be awarded to the subcontractor.

If it becomes apparent during negotiations that a settlement cannot be reached within the Subcontract Manager's delegated authority, the negotiation settlement is delayed until Link's PM and Procurement Management are briefed. The Subcontract Manager's delegation of authority may be modified to include the anticipated range of settlement or escalated to the appropriate management level for resolution or further direction.

Upon successful completion of negotiations, the Subcontract Manager prepares a Negotiation Memorandum that documents the subcontractor's efforts and settlement. This memo is used to establish budgets for the subcontract acquisition.

At all times during the RFP process, it is the Subcontract Manager's responsibility to ensure that all Federal Acquisition Regulation/Defense Federal Acquisition Regulation and related unique customer requirements are satisfied in soliciting, evaluating, negotiating, and awarding subcontracts.

Once Link is satisfied that all appropriate early acquisition issues have been defined and addressed, **the process transitions from the identification-and-selection phase to the award-and-management phase** of the acquisition cycle. Link uses a management and monitoring approach that enables early identification of schedule, cost, and technical problems and prompt, effective corrective action. This approach includes regular communication with subcontractors and among internal IPT members to ensure awareness of status and issues.

Link will employ performance management and control utilizing a number of proven methods. The performance management tools are based on an evaluation of the type of subcontract, the complexity of the work to be performed, the past performance of the subcontractor on similar efforts, the length of the period of performance, and assessment of the subcontractor's capabilities. Examples of performance management and control tools planned for TSA II are described below.

- **Monthly Status Reports.** Link will include a requirement in each TSA II SSOW for the subcontractor to prepare and submit for Link approval a monthly status report. This report documents the achievements for the reported month against the approved schedule, describes problems encountered, presents solutions, identifies plans for the next two months, presents action item status, and provides Subcontractor Data Requirements List approval status. The data provided in these monthly reports are used by the Subcontract Manager and the appropriate IPT members to take action when necessary to ensure that the performance of the subcontractor meets subcontract requirements.
- **Detailed Program Schedule**. Link will include a requirement in each TSA II SSOW for the subcontractor to prepare and submit a program schedule for Link's approval. The schedule will identify major milestones, interdependencies, and other critical tasks necessary to achieve the schedule included in the SOW. Once the schedule is approved by Link, the subcontractor is required to deliver it each month as an attachment to the monthly status report.
- **Weekly Teleconference.** Link's subcontract management team will conduct weekly teleconferences with the subcontractor to track status, discuss technical issues, and any other issues requiring attention. Action items may be assigned at these telecons to either Link or the subcontractor.

- **Technical Interchange Meetings (TIMs).** Link will include in each TSA SSOW a requirement for the subcontractor to host periodic TIMs. TIMs are generally held at the subcontractor's facility to review technical progress, issues, and action items. The subcontractor is required to prepare minutes of the TIM and submit them to Link for approval. The frequency of the TIMs will vary based on the technical complexity of the subcontract, but will occur at least quarterly.
- **Program Management Reviews (PMRs).** Link will include in the TSA II SOW a requirement for the subcontractor to either host or participate in PMRs. Typically, PMRs are used to discuss programmatic and other nontechnical issues and status. These reviews focus on the identification, evaluation, and mitigation of subcontractor risks; provide insight into hardware/software development progress; and provide a forum to identify and resolve technical and management issues. Accordingly, most often PMRs are conducted concurrently with TIMs. In many instances, the subcontractor is asked to support Link's PMRs with the TSA II customer by presenting status and other related information. The subcontractor is required to prepare minutes of the PMR and submit them to Link for approval.
- **Design Reviews.** Depending on the nature of the work being subcontracted, Link will include in the TSA II SOW a requirement for the subcontractor to host and conduct design reviews during the life of the subcontract. Examples of these reviews include the System Requirements Review, Preliminary Design Review (PDR), and Critical Design Review (CDR). Link identifies the entrance and exit criteria the subcontractor must meet to successfully complete the design review. Interface control is established to ensure that the subcontractor's product integrates successfully with Link when the end product is delivered. Subcontractor data deliveries are tied to the dates identified for the design reviews. This ensures that Link has all necessary technical information to approve the phase of the subcontractor's design being reviewed. The subcontractor is responsible for responding to action items assigned during these reviews.
- **Performance Metrics**. Depending on the nature of the work being subcontracted, Link will include in the TSA II SOW a requirement for the subcontractor and Link to jointly agree upon a set of performance metrics. These metrics will be used to monitor progress related to cost, schedule, management, technical performance, risk, and quality issues. Updates to the agreed-to set of metrics are reported each month within the subcontractors Monthly Status Reports.
- **Acceptance Criteria.** Link will establish the acceptance strategy and criteria for the subcontracted products/services and communicate this information to the subcontractor in the

SOW. Link defines the extent of subcontractor involvement during the acceptance period and conducts periodic inspection reviews to ensure that final acceptance testing proceeds successfully.

- **On-Site Representation.** Occasionally, Link may be required to place on-site representation at the subcontractor's facility. The on-site representative works issues involving technical, programmatic, schedule, or other unique aspects of the program to ensure that the subcontractor delivers a fully compliant product on schedule. Although this decision may be made at subcontract award, more typically, Link makes this decision after careful review of the data obtained from the other performance management indicators in place on the subcontract. The terms and conditions of the subcontract give Link the authority to place on-site representatives at the subcontractor's facility if necessary.

Link's experience has proven that continuous communication is a key ingredient to successful subcontract management. Therefore, the Subcontract Manager and key IPT members participate in the planning, solicitation, negotiations, and monitoring of subcontractors. As described earlier, all key IPT members participate in weekly teleconferences, TIMs, and milestone program reviews (e.g., PDR, CDR) to help ensure successful management of TSA II subcontractors. To ensure proper control, only the Subcontract Manager is authorized to formally direct the subcontractor and to make contractual commitments and/or changes. In exercising this authority, the Subcontract Manager receives appropriate direction from the PM and coordinates IPT members' requirements prior to providing any verbal or written direction. This discipline maintains the contractual integrity of Link's relationship with suppliers and eliminates the possibility of mistakes detrimental to the TSA II program.

The key to problem resolution is early problem identification. Link's disciplined approach to subcontract management provides the necessary oversight and, more importantly, insight into subcontractor performance. This oversight enables the Subcontract Manager and IPT members to gain significant insight into the subcontractor's status and performance, including early indication of problems. As indicated in Figure 1-401-1, Link's approach includes multiple subcontract management control events that enable comprehensive performance visibility. These events, such as monthly status reports, weekly teleconferences, TIMs, and design reviews are the mechanisms that make early problem identification possible. Once problems are identified, the Subcontract Manager and the IPT members are able to take immediate action. The close-looped nature of the process provides the means to redirect technical activities or reallocate resources to address and correct problems on a real-time basis. The TSA

II Subcontract Manager and the IPT members involve the PM and Link senior management, as necessary, to assist in the problem-resolution process.

Link has a long history of successful contract performance and many successful subcontract management scenarios that have contributed to that success. As the largest division of L-3 Communications Corporation, Link has extensive subcontract management experience and commits in excess of $120,000,000 in purchase orders and subcontracts annually. A recent example of successful subcontractor management on a key military training system program demonstrates Link's application of the subcontract management and acquisition process. EMI Technologies, Inc. recently completed successful testing for, and delivered, a Mobile Container System (MCS) on schedule and within budget in support of the Aviation Combat Arms Tactical Trainer-Aviation Reconfigurable Manned Simulator (AVCATT-A) Program. EMI was tasked via a SOW and specification to design, manufacture, test, and deliver an MCS consisting of a suite of two trailers (After Action Review and Battle Master Control). This subcontract provides evidence of Link's successful application of the performance management control tools described in Figure 1-401-1, resulting in delivery of a critical subsystem of the program.

Link recognizes that development and fabrication efforts can be problematic. Therefore, effective management and control disciplines are invaluable tools in resolving problems. An excellent example of where these tools were intensively utilized to mitigate impacts to the AVCATT program occurred on a subcontract awarded to Measurement Systems, Incorporated (MSI). MSI was contracted to design, manufacture, assemble, test, and deliver sticks and grips for six helicopter modules, together with electric control loading (ECL) for the modules. MSI had a critical international supplier responsible for providing the motors used in the ECL. As a result of problems experienced by the motor subcontractor, MSI was unable to meet Link's original delivery requirements. The AVCATT IPT members provided critical engineering and quality assurance expertise that was instrumental in correcting the problems, thereby mitigating the delinquency.

Link Make-or-Buy decisions are based on the requirements to be satisfied and the optimum combination of performance, schedule, quality, and cost factors in accordance with all applicable Government regulations. The decision process of whether to make-or-buy items occurs after an analysis of the planned bill of materials is performed. Items considered complex, critical, and of a substantial dollar value are considered candidates for a make-or-buy decision.

Led by the PM, a Make-or-Buy Committee is established. It includes the Subcontract Manager and other key TSA II IPT members. The Chairperson of the Make-or-Buy Committee is the PM, using

inputs from the other IPT participants. The committee meets, deliberates, and documents its decisions in the following instances:

- During the proposal stage, to determine whether a formal Make-or-Buy Program is needed in the prime or subcontracts
- Whenever circumstances have changed significantly enough to warrant a review of previous decisions or current practices
- As soon as practicable after contract award.

Although not necessarily in priority order, the major factors considered in the make-or-buy decision process are program schedules, in-house expertise, capability and workload, customer directives, and impact on general business cost. Trade-offs are expected between long- and short-term objectives. Knowledge of the capabilities of other L-3 business units is pertinent to the make-or-buy process. Link's make-or-buy process ensures low-risk solutions and best value to the TSA II program and the TSA II customer.

To prepare for our TSA II proposal**, Link conducted a comprehensive assessment of potential TSA II subcontractors.** These subcontractors possess technical capabilities that could supplement Link's and those of our existing, approved supplier base. This assessment included a detailed review and evaluation of the capabilities of 34 subcontractors relative to the TSA II FRD. In addition to our existing base of approved suppliers, Figure 1-401-2 identifies a partial list of potential subcontractors that Link has assessed who will be considered for TSA II subcontract content. The list of potential subcontractors contains only a portion of our highly qualified subcontractors and our qualified vendors. The list is indicative of the broad range of capabilities available to Link to meet the total requirements for the successful accomplishment of TSA II Delivery Orders.

Link has executed a formal, written teaming relationship with ECC International of Orlando, Florida for TSA II Task Orders. ECC specializes in the design and development of aviation maintenance trainers for wide-body aircraft and provides complementary expertise that will assist Link in satisfying TSA II Task Orders. They are our only formal TSA II subcontractor. However, we will evaluate the requirements of each individual task order and assemble a best-value solution for each, which may include additional subcontractors.

Functional Requirements Documents Applicability (Summary Level)

Subcontractors	Functional Requirements Document Reference	3.1.1 Training Systems	3.1.2 Training Devices	3.1.3 Subsystems	3.1.4 Training Systems Support	3.2 Design Concept and Prototype Development	3.3 Program Management/Systems Engineering	3.4 Upgrades and Modifications	3.5 Interoperability	3.6 Qualification and Test
DRC	X	X	X	X	X	X	X	X	X	X
ECC	X	X	X	X	X	X	X		X	X
EER		X	X	X	X	X	X		X	X
Evans & Sutherland	X	X	X			X	X	X	X	X
Fidelity				X	X	X	X		X	X
Galaxy Scientific Corp.	X	X	X	X	X	X	X		X	X
Karta	X		X		X	X	X		X	X
MES, Inc.	X	X	X	X	X	X	X	X	X	X
Metters Industries, Inc.	X	X	X	X	X	X	X		X	X
Research Triangle Institute	X	X	X	X	X	X	X		X	X
SDS International, Inc.	X	X	X	X	X	X	X	X	X	X
Star Mountain, Inc.				X		X	X		X	X
THALES		X	X	X	X	X	X	X	X	X

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Figure 1-401-2 Capability of Potential Link Subcontractors for TSA II Task Orders

Link's Product Integrity organization, as a key TSA II IPT member, supports the Subcontract Manager by providing subject matter experts in the Quality Assurance and Configuration/Data Management disciplines. These critical IPT members contribute to the overall selection, tasking, and success of the subcontract management IPT. They ensure that candidate suppliers are capable of performing prior to order award. Supplier performance is measured and evaluated monthly for quality and delivery performance in order to maintain an effective supplier team.

The Quality Assurance organization within Product Integrity maintains a contract evaluation process that generates a TSA II contract quality summary report. The contract quality summary report serves as the quality plan for the TSA II program. It contains critical information relating to specific customer quality requirements that meet Link's ISO-9001-compliant system. The contract quality summary is coordinated with the program team and released to Configuration/Data Management for reference throughout program execution.

Link's internal quality and configuration management practices, combined with TSA II program-specific requirements, are used as the basis for supplier flow-down requirements. Additional requirements may be added, depending on the specific supplier's capabilities and system maturity as determined during preaward surveys and evaluation of historical performance.

Quality assurance and configuration/data management requirements will be incorporated into basic commodity orders (e.g., commercial off-the-shelf items) by assigning quality assurance terms and conditions in the part master file of the procurement system. Subcontract requirements, such as major subsystems, software development, and complex integration tasks, are addressed through unique SSOW. These contain all required tasking, exit criteria for each of the tasks, schedules, quality, and configuration/data management requirements. SSOWs are coordinated and released after they are reviewed and approved by the subcontract management IPT. Successful subcontracting begins with planning and proper tasking. Continued success of the supplier team is assured through frequent communications, feedback, and evaluations. The subcontract management IPT reviews the subcontractor's monthly status report, conducts periodic reviews on site, conducts Netmeetings™, and completes audits and source acceptance activities to ensure products conform with contracted requirements. If a departure from plan is detected, Link maintains a comprehensive corrective action program that ensures timely feedback of issues to the entire Link team. Link's internal audit program, currently staffed with 24 trained auditors, maintains a constant vigil to ensure that compliance with the supplier management processes is maintained by all personnel involved with this critically important program task.